

**UNITED STATES DEPARTMENT OF THE INTERIOR  
National Satellite Land Remote Sensing Data Archive  
Advisory Committee Meeting**

**Minutes of  
First Meeting of Second Charter (2001-2003)  
U.S. Geological Survey/EROS Data Center  
Sioux Falls, South Dakota**

**March 28-30, 2001**

**Academia**

|                                  |                                      |
|----------------------------------|--------------------------------------|
| Laboratory researcher-data user: | Dr. Samuel Goward, Univ. of Maryland |
| Classroom educator-data user:    | Dr. Gerald Nelson, Univ. of Illinois |

**Government**

|                        |   |
|------------------------|---|
| Federal data user:     | Dr. Brad Doorn, USDA/Foreign Agr. Service |
| Federal data user:     | Mr. Darrel Williams, Landsat Scientist,   |
| NASA/GSFC              |   |
| State/Local data user: | Ms. Ameila Budge, Univ. New Mexico, EDAC  |
| State/Local data user: | Dr. Hugh Bender, Texas Nat'l. Res. Info.  |
| Service                |   |

**Industry**

|                                     |   |
|-------------------------------------|---|
| Data management technologist:       | Dr. John S. MacDonald, Chairman,<br>MacDonald-Dettwiler (Retired) |
| Licensed data provider:             | Mr. Herb Satterlee, President EarthWatch                          |
| Value-added or other data provider: | Mr. Doug Hall, CEO, EarthSat                                      |
| End user:                           | Mr. Joseph Harroun, Cargill Inc.                                  |

**Other**

|  |   |
|--|---|
| Non-affiliated individual at-large:    | Prof. Joanne Gabrynowicz,* UND/Space<br>Studies       |
| Non-government organization:           | TBD:  |
| International non-U.S. representative: | Dr. Edryd Shaw, Director General, CCRS                |
| At-large from any sector:              | Ms. Karen Siderelis, USGS Geographic Info.<br>Officer |
| At-large from any sector:              | Ms. Kass Green, Pres., Space Imaging Svcs.            |

**Ex-Officio**

|  |   |
|--|---|
| Long-term land archive                     | Mr. Thomas Holm, USGS/EROS Data Center                    |
| Long-term oceans & atmospheric<br>archive: | Dr. Kenneth Davidson, NOAA, Nat'l Climatic<br>Data Center |

\* Address and email change: Prof. Joanne Gabrynowicz, Director & Prof. of Law, National Remote Sensing & Space Law Center, P.O. Box 1848, University of Mississippi, University, MS 38677-1848, FedEx Address: School of Law, Room 557, 1 Grove Loop, Tel:662-915-6877, Fax:662-915-6857, email:jgabryno@olemiss.edu

## Record of Committee Meeting Attendance

March 28-30, 2001

### Present:

Ms. Ameila Budge  
Dr. Kenneth Davidson  
Dr. Brad Doorn  
Prof. Joanne Gabrynowicz  
Dr. Samuel Goward  
Ms. Kass Green  
Mr. Doug Hall  
Mr. Joseph Harroun  
Mr. Thomas Holm  
Dr. John S. MacDonald  
Dr. Gerald Nelson  
Dr. Edryd Shaw  
Ms. Karen Siderelis

### Absent:\*

Dr. Hugh Bender  
Mr. Herb Satterlee  
Mr. Darrel Williams

\* See page 3, Committee Makeup, paragraph 2.

**Wednesday, March 28, 2001**

**Welcome**

Thomas Holm, Chief, Data Services Branch, EROS Data Center (EDC), U.S. Geological Survey opened the meeting and welcomed everyone to the U.S. Geological Survey/EROS Data Center (USGS/EDC).

Joanne Gabrynowicz, co-chair for the AAC first charter group continued as chair until new co-chairs were elected.

Brad Heegel and Diane Gudahl, Augustana College Conference Consultants, reminded members of the logistics for the meeting.

**Review**

T. Holm reviewed the agenda information and the contents of the binders. The agenda was agreed to and T. Holm outlined his primary objective of the meeting:

- Develop a work plan for the next 2 years.
- Identify subcommittees – who, what, where.

*Word of caution by T. Holm: The EDC is in the process of recompeting the prime technical support services contract. It was noted that this is a public meeting. EDC looked at the agenda and didn't see that there was anything that would be discussed that hasn't already been in the RFP. T. Holm will stop the discussion, if necessary.*

**Introduction of members**

See page 1 for listing of new members.

**New Members to the Committee**

Doug Hall  
Jerry Nelson  
Karen Siderelis  
Brad Doorn  
Sam Goward  
Herb Satterlee, absent  
Hugh Bender, absent

T. Holm will meet with those not present to go through the material so they are at the same level as the rest of the Committee. Herb Satterlee has been at the Data Center and taken the tour.

Also at the meeting were: Wayne Miller, Deputy Chief, Satellite Systems Branch, EDC, and Beth Duff, USGS NMD Headquarters, Reston, Virginia.

## **Committee Makeup**

J. Gabrynowicz went over the Purpose and Objectives of the Committee. The third objective is the interdisciplinary guidance—the real strength of the group. The Advisory Committee Charge—working for the people; stewards of the data.

Members of the Committee are appointed and invited by name, not their organization. Because it is a name-specific appointment no one may attend in your place. If you do not attend 2 meetings in a row you are off the Committee (AAC-I advice). There are times when an absence is unavoidable and will be excused by the Committee. The 3 people not here will be given dispensation because the Committee meeting was pulled together in such a short time. Meeting dates were picked because of weather and other meetings scheduled. Therefore, it is beneficial to do the schedule 2 years ahead of time. The following dates were agreed to by the Committee:

October 24-26, 2001 (DC Area)

May 1-3, 2002 (Sioux Falls) – (this was changed because of conflict with ASPRS.)

October 23-25, 2002 (DC Area)

February or March (TBD by Committee)

The Committee has one open slot. It can be filled with the expertise necessary once the work plan for the next 2 years has been defined.

## **April 2000 Briefing to Director Groat**

J. Gabrynowicz briefing was given to Chip Groat, Director, USGS, and other headquarters people on April 26, 2000. (A Space Policy article written by J. Gabrynowicz was handed out.

## **General Discussion**

All of the recommendations from the last Committee were put into a draft Archive Data Policy.

Is there an attempt to work with and share the land data archive with the archive of atmospheric and ocean data? Is there a single thing that categorizes data? There is metadata coverage. There are common standards used to access and acquire data. Has there been discussion on systems designed to draw lines between lands, atmospheric, and oceanic? The Committee has briefly touched on this but there has been no lengthy discussion. In the next 2 years the Committee will move closer to these topics.

EDC has AVHRR data, but NOAA has the mandate for the archiving AVHRR. EDC is the backup for HRPT data for NOAA.

The National Land Satellite Remote Sensing Data Archive (NLSRSDA) was established about 10 years ago, representing 5 decades of data (1960 through 2000).

It was noted that NOAA licensed commercial companies are to notify the Archive within 12 months of a data purge. This was recommended/reported as 6 months in the briefing to the USGS Director.

“COFUR” – Cost of Fulfilling a User Request.

NASA is going to start charging for data but we don't know at what price. Therefore, transition of data to the Archive remains an issue. Ideally we (NASA and EDC) should have the same COFUR definition.

Question of COFUR when it relates to science. We really need to look at this because we will not be able to do the science because of data cost. This is a discussion that needs to take place. Landsat 7 archive is confusing to many AAC members. It is not under NSLRSDA, but under the Landsat mission.

Petabyte is 1,000 terabytes of data. EDC had 100 terabytes of data in 1990 and will reach 1 petabyte of data by 2004.

EDC is required to provide data in a timely manner. We will be looking at innovative ways to access data. There has been exponential Archive growth and also technology to go with it. At what point will we have to be selective? We need to look at changes in the land cover. CCRS is creating data sets by year. Choices are made on how you want to characterize land cover. This general topic should be the focus of the next 2 years.

- A Business Partner (BP) Program supports mapping, digital cartographic data, and Landsat 7 (these are addenda to the Business Partner Agreements). In 2000 the BP's accounted for 9% of the sales. This year the BP's were 29% of our sales. Bulk price was established for the BP's in May 2000.
- The Landsat 7 data policy stopped short of providing the full suite of unenhanced data.
- In accepting data into the Archive look at the proposed data and what has to happen to it to be accepted into the Archive. It is often costly.
- T. Holm wants to come back to the purging of data and the long-range data plans for archiving.
- USGS/EDC and NOAA-NCDC are becoming affiliate archives. Copies of our data are sent to NOAA and they send data to EDC. There is only shipping costs to do this.
- One of the recommendations was to get more visibility of NSLRSDA.

- At the Federal level, we have to look at how we do outreach. The USDA, EPA, etc., should be more active in defining the requirements. We need to find trigger items ,i.e., relevance. It shouldn't be archive, but food security. It shouldn't be data but solutions. The hard question is "why." We want to promote the relevance of the data to society. Topic should be discussed more.

## **Greetings**

Donald Lauer, Chief, EROS Data Center, welcomed the members.

You know what we are trying to accomplish with this Committee. We are starting the next go around. Based on the inquiries being made by the Secretary's office there is great interest in what is going on. Secretary of the Interior's Gale Norton has asked about remote sensing and Landsat. The job we have here at the Center is to hold in trust the National Archive. The law is very important and clear. We take the job extremely seriously to protect and preserve the Archive. In the international community it is very important and they value the archived data. We need help and this Committee has been very helpful in the past 2 years. It was important to continue the Committee with some new faces. Thanks for your contributions.

## **Election of Co-Chairs**

Joe Harroun nominated Joanne Gabrynowicz. Amy Budge seconded. Unanimously approved.

Joanne Gabrynowicz nominated Sam Goward. Amy Budge seconded. Unanimously approved.

Meeting was turned over to the co-chairs.

## **White Paper Review and Discussion** (J. Gabrynowicz and A. Budge)

Subgroup meeting was held in February and resulted in a draft white paper - Access to Restricted Data: A White Paper. Those attending the meeting were Prue Adler, Annette Kriegel, Joanne Gabrynowicz, John MacDonald, John Copple, and Ken Davidson. The group looked from the perspective of a user and a data supplier, and dealt with trying to acquire data for other users. There were certain roadblocks regarding licensed data, etc. Started the paper on trying to access data for public use. K. Davidson had another perspective – from archiving work. Members came up with a draft that was brought to the Committee and finalized. They looked at many different aspects and areas in order to come up with the conclusion that the language in the license was general but nonuniform as it related to data suppliers. Short term archiving was not clear. Licenses only give rights to use the data. There are multi user licenses available; differences in using the data and differences in the cost of data. The paper

ended with issues that identified with recommendations. Classified data was not discussed. Dealt with governments spending government funds for restricted data and how valuable it was to maintain restricted data (with a clause).

Why should the data go into the Archive? What is the value? Data may have historically significant value. Not all data may be deemed valuable but the data needs to be preserved so that they are available to the people of the future.

T. Holm wanted to talk about the basic data set and our need to decide what it is that we want to archive. Needed a definition for the basic data set that could be applied to potential data sets. When it was tried everything that went into the sieve (Tab 5) was accepted. Could we put more work into this? Could we answer the 'why' question? Need to look at the data on a case-by-case basis. Are the data unique enough?

NASA science data buy activity--in that case there was the Science Advisory Panel. The steps in the sieve were both qualitative and quantitative. The resolution that came out of the group was very good. Some thought it could have been done better. The standards are set by the market. NIMA has 13 license types that industry responds to. One suggestion that doesn't fall into the category is licensed type would be an acceptable sunset law if the copyright were maintained but there are 'no use' restrictions on it.

The academic and educational researchers are not part of the discussion. The License Pyramid was prepared to help NIMA establish contractual agreements/licenses. The market started forcing some standards. Industry also needed to consider that most Federal agencies get money to do a job and some money needed to go to the archiving of the data. If industry considered making archiving costs part of the process (or part of the discussion) could it be an option as part of the license? Open for discussion. We want all kinds of data. Could this be a part of the affiliate archive discussion? A strategy should be considered for the case where we acquire restricted data that does not have scientific distribution.

Look over the recommendations on restricted data from the white paper. The key to the recommendations concluded that the Archive should accept restricted data when tied to up front use of the data for disasters, sunset clause, etc. Value on the research and commercial side for having the Data Center serve as the Archive? Benefit to a company who would like to keep their overhead down to have a copy put into the Archive? Cash value or life sustainability. Could negotiate archiving.

This is a dynamic industry and we don't know what it will look like in 5 to 10 years. As a goal, the removal of any restrictions should be in a reasonable time frame. Build on the work of the previous Committee and not trash what we have. If the data has no cash value why isn't it given away?

## **NSLRSDA (na-slurs-da) Baseline, Systems, Plans**

The afternoon agenda was changed to cover the NSLRSDA baseline, hardware, future satellites, and strategic plan.

John Faundeen introduced Dennis Thurman, Archive project lead, and briefed the Committee on the NSLRSDA baseline.

The Committee will help us determine what to focus on for the Archive.

- MRLC processed data are not in the Archive. However, the raw data is part of the National Archive basic data set.
- Potential loss of data: Vinegar Syndrome – 20,000 rolls of data affected. Very costly to fix. EDC is working on getting dollars to fix the problem, but not likely in today's climate. Some of the data involved are one-time coverage.
- EDC discovered well over 100,000 scenes that were never cataloged. (Reference "Quaternary Park: Retrieval of Lost Satellite Images From the Late 20<sup>th</sup> Century.")
- Does EDC have all MSS tapes? If downlinked from a foreign station we may not have them; if from a U.S. system we do.

### **Systems:**

- SRTM available – 30m over U.S. and 90m outside the U.S. (with restrictions). Images are processed to Level 0 and then we would offer 30m.
- ASTER – Access date will be negotiated with Japan on when it should be available.
- MODIS – Will be reprocessing several times. We want it when it is ready. Could be 8 years out.
- SPOT – We have received the last of the SPOT data. We may distribute to any U.S. customer but it would come with a copyright.
- Controversy with Declassified II data because of resolution.
- (Stennis/EarthSat) Global Landsat Mapping Project data may be redundant to what is in the Archive. The delivery to us would be from Stennis to the DAAC. Distribution will be from the DAAC.
- Landsat 7 – Data is in a Mission Archive. Everything is kept. We have access to data going to the ground stations through our ground station agreements.



We should have some mechanism for identifying data sets available from Federal or other data purchases. Tracking data sets purchased used to be kept in what was called FOLD-Federally Owned Landsat Data. It was a manual system. Should we do it again? Open question.

### **Data Archive Strategic Plan**

T. Holm briefed the Committee on the USGS/EDC Data Archive Strategic Plan.

T. Holm wants feedback from the Committee on strategic actions.

How are people going to know that they are using the Archive when searching USGS/EDC holdings? It is the number 1 priority that we get out the fact that we are USGS, but we need to be more visible for the Archive.

Archive data grant proposed to Public Release at Pecora in November 2002. Suggest Jack Estes Memorial Data Grant (will work through Lauer). Committee reached first consensus.

**Thursday, March 29, 2001**

## **Landsat 7**

A Landsat 7 acquisition was viewed at 9:18.

David Carneggie gave a presentation on Landsat 7.

- USGS has responsibility for the Landsat 7 Mission Operations Center (MOC). NASA did not transfer funds, the funds are USGS appropriated dollars.
- Bumperware on ETM+ is something that is being looked at. Life of mission is estimated to be through mid-2006.

Landsat 7 data acquired directly by the IGS's do not go into the U.S. Archive. Shouldn't there be a means for getting these data? Most of the current stations have archives. We need to approach this subject. Do all ground stations have long-term archive plans? How do you determine the differences between the good scenes we get and what is out there? For the future will the relationship with the ground stations continue? Coverage of U.S. territories is acquired whether cloud covered or not. This is not true for other coverage.

Customers for Landsat 7 are being surveyed to determine how and why they are buying Landsat 7 data.

There are 36 business partners.

Are international customers and business partners kept separate?

Should we look at where we have spotty coverage in our Archive (globally) and begin to negotiate data exchange agreements today with the IGS's rather than waiting?

## **DAAC**

Tom Kalvelage made a presentation on the Distributed Active Archive Center (DAAC).

- Committee asked the status of NASA charging for their products? T. Kalvelage reported they have decided that they (NASA) want to charge. DAAC will be continuing to work on billing and accounting. When we have been given the go-ahead from NASA, the DAAC's will start charging.
- DAAC to long-term archive transfers will be data-set specific.
- DAAC data at 3 years will transfer to the Archive, but will be addressed on a data set basis. Should the Archive add Level 1 data or Level 2 and Level 3 data?

What is the migration path? Or, do we do raw data? How about archiving algorithms used on the data?

- Migration of Landsat 7 data to the long-term archive is a “no brainer.” Transition of MODIS or ASTER will be much more complex.

### **Future Satellite Systems**

John Boyd’s presentation was on New Mission Opportunities for both EDC and the Archive.

There is baseline funding for archiving, however, this only maintains the Archive. It is a big fiscal issue. Archive is growing faster than the money coming in.

Were new mission opportunities included in the budget growth of the Archive? No. Do you plan to look at it and see what happens to the Archive growth and impact? There is a sense in the conversation that first you have a growth path. The amount for potential data is far greater than any resources you will ever have. If you start talking about a national land archive you have to look at the science drivers (this generation and next) so you know what to handle. Second thrust is technical and the way data is handled. Do you serve independently from commercialization?

A national Archive can never deal with all the data available.

The problem, as an Archive, you always think about the release of data. If data were more historical it shouldn’t be such a problem.

### **2-Year Goal for the AAC**

Discussion started on the Committee’s 2-year goals.

If there is something the Committee (in the first 2 years) has already addressed and made a recommendation about, we are encouraged to leave it unless we feel strongly about it.

### **Recommendations From the Last Committee**

Discussion started on the recommendations from the last Committee meeting.

To answer the warning about exponential data growth, what about global data management scheme among other archives provided there were standards that could be met? That might be the way to get a global archive that is inexpensive.

Migration to DAAC. Raw data or different level of processes. Does raw data include metadata? Is there a discussion here? What about algorithms and maybe some subsets of data? Does keeping the raw data prohibit the addition of future algorithms?

What about NALC data sets? The Archive has a certain characteristic and when you talk about the NALC triplet, things may become redundant. There will be exceptions to the rule of 'only raw data.'

Definition of COFUR? Science community faces problems. With data studies, COFUR doesn't make sense. 1 year's worth of Landsat observations will cost \$20 million to get out of the Archive. USGS and NASA look at these differently. This is a place where the Committee can have something to say. Competition is working to do things for COFUR and when on the net it will be at no cost to the user.

We need to look at a science model to justify what should and shouldn't be in the Archive. What steps can be taken to reduce the bytes we are dealing with?

Are we dealing with the whole Earth? Are there areas where there are gaps of serious overlap? We need to address these, i.e., coral reefs are missed. If we are going to have this type of interaction we want to ensure that the metadata standards are interchangeable. Do we want to take a look at if we have duplicates with other data centers? AAC can make a recommendation that NOAA and USGS take a look at duplicate data.

ACTION: Davidson/Holm – Consider NOAA USGS relationship for coastal zone data.

ACTION – Report on SRTM data policy – T. Holm and J. Boyd will have it written up.

ACTION: NIMA representative on the Committee – Tom Hennig 301-227-3046. Joanne will contact Mr. Hennig.

Should IGS data make it into the Archive browse? It isn't just Landsat. There are many data sets. Federal agencies should all be required to report to the Archive on their acquisitions. There is data in other places and no way to get it here. Adds to commercial use. This becomes a question of cost. If you can come into EDC and get referred to an Archive in Duluth why keep it at EDC? Access to all archives? Accessibility to other catalog systems is becoming more prevalent. Process to identify, locate and ingest, register and access data located elsewhere – IGS, U.S. Federal agencies, commercial services.

Identify potential new user groups (part of outreach). ACTION: Distribute multi-lateral agreement report – Joanne.

Compare use of NSLRSDA name and identity on USGS materials. ACTION: T. Holm mock up some sample strategy to do this and then bring back to the group. Logo and tag line – NATIONAL ARCHIVE- Preserving data for the future. ACTION: Document the Committee advice to provide some visibility to the Archive – Joanne.

The heart of the discussion between the commercial and Government is what should be the quality of the basic data set of the National Archive and the way to get there. There

are two policy decisions Landsat policy and after 3 years it will be 1T and 1P. We need to watch these. If we ultimately talk about an Archive that meets user needs until you get to this stage you don't have geographic data you only have engineering data? Isn't this an issue of what we archive? Real question is what do you archive? Level "0" so we can create 1T and 1P data? Need to know who your customers are. Is it a distribution question or an archive question? It is also a question of what level of expertise you have? Should a user expect to come in to the National Archive and get to user data sets?

Has anyone at EDC addressed what the strategy is for the Archive? Should we have certain percentage of data? Do we have a strategy overall to address the Landsat data continuity life?

What is the archive's position on closing information gaps? Just advise on how we think the Archive should look. Don't think we are really talking about the Archive. We are talking about a data base that is of national interest and maintaining it in the future.

The Committee found in the white paper that the Archive goes beyond the traditional archive because we have to provide access. We are holding data in order to provide access. So, we really do need some sort of strategy.

CCRS wants to cover Canada for posterity. There may be other things we want to archive.

One of NOAA's archive roles is climate. We turn down state archives that have finer density. NOAA distributed broad scale data. NOAA defined their archive with the constraints.

First item to address as a Committee is the data sieve (this is EDC's number one priority). T. Holm would like this Committee to decide what the charge is for the subcommittee. T. Holm went through the basic data set slides. Think about a subgroup for this one. Should be people who have a good technical and practical knowledge of data sets. Identify group before we break up tomorrow morning.

COFUR –AAC can only advise the USGS on COFUR.

The following agenda items will be worked on for review on Friday. (See Friday notes for final list with subgroups, actions, and volunteers.) List was clarified by Joanne and Sam Goward and ranked in order of importance. Make sure that these agenda items are framed so that the subcommittee understands what they are supposed to be doing.

1. Data Sieve – Davidson, Shaw, Harroun
2. Data Goal for the Archive – Doorn, Hall
3. Level of Data and Information Archived – Green, MacDonald
4. Outreach for the Archive – Nelson, Harroun
5. Archive Distribution and COFUR – Goward, Doorn, Hall

**Friday, March 30, 2001**

Data Grant – needs to be done now or we will lose the chance. Need to get the word out. EDC would like to do a formal data grant targeted on demonstrating the relevance of archived data. Could also use some high-resolution data. Call for proposals, evaluate by a board, selecting between 10 and 20 recipients of the data to carry out their proposals, special journals and focus issues. Focus should be on looking at the archive and Earth observation data relevance.

A small grant was done several years ago. Spent about \$60K. T. Holm would like a grant in the area of \$500K. One proposal might acquire only 4 images or maybe 15 images. Parameters – need to subsidize researchers not help people get data free. Kass Green has the language necessary for research. Look at:

- Data in Archive
- Research
- Use historical data
- Not operational
- Commercial representative as reviewer
- Landsat 7
- SI archive
- No money grants
- Change detection
- Categories of Award
- New user category
- Publish in non-remote sensing journals
- Offer whatever data level that serves the research
- High school user
- Announcement mechanism
- Budget \$10,000 to market grant results

Using Pecora and/or ASPRS gives the users some thing to shoot for.

Focus on the outcome.

Need to be careful how we approach so that the Archive is used. If they don't use the Archive the proposal will be thrown out. Collateral sources are available.

International agricultural research centers is one group that can be targeted. They have ideas but need technical help;

Global Environmental Front (GEF) activities that take place in environmental countries could be a valuable use of remote sensing data.

For these groups the Pecora and/or ASPERS conferences are not the place. There would need to be other meetings.

Look at state, local and tribal groups. Get down to the farmers and local groups. They need someone to help them with the data.

Technical issue related to the use of historical data, calibration issues, changes in fields of performance, etc.

Don't think we are looking at a new group of researchers but looking at what they are researching for. It needs to be something relevant enough for a different group of people to look at.

The researchers have to be people that are trained in this area. Also have a requirement for press releases for the awards.

T. Holm needs help in getting the focus for the grants in the next couple of months.

Unanimous support of the data grant concept. ACTION: Kass Green to get information to John Faundeen.

Subgroup: Kass Green, Joanne Gabrynowicz, Thomas Holm, and John Faundeen will meet. One more person is needed.

### Groups

1. G.E.F. regarding developing nations
2. International Agricultural Centers
3. State, local, tribal governments
4. Peer reviewed, quality research
5. Awards at Pecora 2002 (most relevant)

### Agenda Items

#### #1 - Data Sieve

1. Definition of Problem: Current recommended sieve would result in exponential growth and may not currently serve the purpose of the sieve.
2. Background: Former minutes and statement of current sieve.
3. Concerns: Growth of Archive may be too great, may be beyond mission and goals of archive.
4. Approach
  - a. Review data sieve to determine why it isn't working as planned.
  - b. Review legal framework.
  - c. Review mission, vision, and goals of Archive.

- d. Review other agencies data selection criteria.
  - e. Review Archive user requirements.
  - f. Draft white paper on recommended action and sieve.
5. Time table
- a. A, B, C by 2<sup>nd</sup> meeting
  - b. D, E by 3<sup>rd</sup> meeting
  - c. F by last meeting.

Committee response: We will need a subgroup meeting. We are recommending what the model should be. Demonstrating one application as a model. We are committing ourselves to a white paper. The sieve will have to be widely distributed. Could recommend an external source access group. Subgroup: Ken Davidson, Sam Goward, Ed Shaw, Joanne Gabrynowicz, Tom Holm

ACTION: Need agenda and report from the Data Sieve subgroup.

#2 - A goal of the Archive is to collect the best and most comprehensive land satellite data available. Other U.S. Government agencies, IGS, and research institutions collect large amounts of data that may not be included in the Archive. The Committee should address the following questions.

- Is USGS making the most effective use of U.S. Government resources devoted to satellite data collection?
- Are there gaps in the current Archive dataset that may be filled outside the USGS acquisition plan?
- Are current IGS agreements sufficient to guarantee the availability and safeguarding of IGS collected data?

Committee response: Should be directed to how we would be collecting data from other sources. Are we making effective use of data? Are there gaps? IGS agreement? Subgroup: Brad Doorn, Doug Hall, Karen Siderelis. Use Faundeen as a POC for this question.

#3 - To most efficiently use resources, data should be archived at the most basic level with metadata.

Information (defined as data that has been classified into useful categories) may be archived on a case by case basis. Criteria for archiving information should weigh the value of the information verses the cost of recreating the information.

Committee response: There might be some cases where it is worthwhile, but it is an economical decision.

As you look at Archive holdings there are data sets that wouldn't need to be archived because the data set can be recreated easily. But there are data set that are very expensive to be recreated and they should be archived. You need the freedom to archive data on a case-by-case basis and economical basis.



Canada looks at collections of data that people can access. Look at the future use of the data. Need to talk about what the historical archive should be.

#### #4 – AAC Discussion Items for Outreach Recommendation

The goal is how to make the data stored in the Archive more useful to existing users and to identify potential new users who would benefit from access to the data and ancillary products. This process could also be used as input into the data sieve recommendations. The AAC should discuss and recommend how to identify and target different groups. Examples of ways to do this right include surveying of existing users to identify existing markets and their thoughts on the potential for growth as well as identifying new markets.

To facilitate this, AAC requests briefings on existing outreach activities including where possible, qualitative and quantitative assessment measures.

Examples of such groups include owners of assets in a watershed, groups interested in development and enforcement of Multilateral Environmental Agreements, help Congress get ready for Farm Bill.

Should the archive revisit its approach to a survey of user views on data access?

Committee response: From last meeting the outreach topic was very important and that needs to be followed up. There were many recommendations that were made. What is the status?

ACTION: Harroun and Nelson will pull information out of past Committee minutes. Over the course of the next 2 years others should email with meetings that you know about.

ACTION: Give update on outreach and user activities at the center – report at next meeting. Look at the responses to the Landsat 7 survey.

EDC has a response card that goes out and we may want to send out – add specific outreach data with the card.

Talking about what AAC should do in terms of outreach for the Archive and changes we recommend to the archive that it should do.

#5 - The goal of the Archive is to achieve the greatest distribution possible of satellite data in the archive. The current COFUR policy works against this goal by creating an economic barrier to utilization of the data, particularly for large volume users. The Committee should address the following questions.

- Does the current USGS policy accurately reflect the actual cost of fulfilling user requests?

- Does the evolution of information technology, now or in the future, change the parameters in which the current COFOR policy is based?
- Should USGS consider different delivery mechanisms and pricing levels for large volume data delivery?
- Is the current USGS COFOR policy consistent with OMB Circular A-130 and other U.S. Government agencies that manage large archives?

Committee response: COFUR – Goward and Hall - We have concerns with the current policy. Doesn't reflect costs. And there changes occurring that affect this.

EDC prices are approved by the Undersecretary of Water and Science in DOI. EDC has always done time-and-material for large projects. We have been told that we cannot do this any more. The AAC advised that EDC gets the authorization to go back to being able to offer time-and-material. USGS is required to charge COFUR – recover full cost of production and distribution. Have to report cost recovery analysis – we then have to review the pricing.

ACTION: Agenda needs discussion – briefing people on how to approach this in order to form discussion – Sam, Doug, Brad and Joanne

ACTION: John Faundeen to provide list server and web page. Doing a white paper on line doesn't work.

Goals of archive need to be the first item of discussion.

Growth of the Archive – stream lining costs. What level of funding will you require for the next couple of years? Can a percentage be done? What are requirements.

ACTION: T. Holm and J. Faundeen will get information estimates to the Committee (Green) within 10 days.

All appropriations take a cut for assessment dollars.

### **Archive Access Strategic Plan**

T. Holm's presentation – USGS/EDC access strategy.

Space Imaging has been doing a lot of work on water marking. Fred Doyle can be contact by John Faundeen.

ACTION: T. Holm report on the status of the implementation of the data access strategic plan.

Is the USGS pricing policy set up so that it could be used or will it need to be written? There is a concern about DOI being willing to change prices.

NARA is now charging to take material into the archive.

More access vs. product distribution revenue? We are looking at revenue replacement.

We have a hard time explaining to the members of Congress what the Archive is. The data grant is a good start but we need to be far more aggressive.

**We have our 2-year work plan. We have reached our goal for this first meeting.**

Meeting adjourned.

## **ACTION ITEMS**

**ACTION:** Davidson/Holm – Consider NOAA USGS relationship for coastal zone data.

(From Meeting Minutes -- Are we dealing with the whole Earth? Are there areas where there are gaps or serious overlap? We need to address these, i.e., coral reefs are missed. If we are going to have this type of interaction we want to ensure that the metadata standards are interchangeable. Do we want to take a look at if we have duplicates with other data centers? AAC can make a recommendation that NOAA and USGS take a look at duplicate data.)

**ACTION –** Report on SRTM data policy – T. Holm and J. Boyd will have it written up.

**ACTION:** NIMA representative on the Committee – Tom Hennig 301-227-3046. Joanne will contact Mr. Hennig.

**ACTION:** T. Holm mock up some sample products.

(From Meeting Minutes: USGS logo and tag line – NATIONAL ARCHIVE- Preserving data for the future – present at next AAC meeting. Compare use of NSLRSDA name and identity on USGS materials.)

**ACTION:** Give update on outreach and user activities at the EROS Data Center – report at next meeting. Look at the responses to the Landsat 7 survey.

**ACTION:** Document the Committee advice to provide some visibility to the Archive – Joanne.

**ACTION:** Kass Green to get information to John Faundeen. (From Meeting Minutes -- A small grant was done several years ago. Spent about \$60K. T. Holm would like a grant in the area of \$500K. One proposal might acquire only 4 images or maybe 15 images. Parameters – need to subsidize researchers not help people get data free. Kass Green has the language necessary for research.)

**ACTION:** Need agenda and report from each subgroup (if they meet prior to the next AAC).

**ACTION:** Harroun and Nelson will pull information out of past Committee minutes. Over the course of the next 2 years others should email with meetings that you know about where the Archive can focus on outreach.

(From Meeting Minutes -- From last meeting the outreach topic was very interesting and that needs to be followed up. There were many recommendations that were made... Talking about what AAC should do in terms of outreach for the Archive and changes we recommend to the archive that it should do.)

**ACTION:** Agenda needs discussion – briefing people on how to approach this in order to form discussion – Sam, Doug, Brad and Joanne

**ACTION:** John Faundeen to provide list server and web page.

**ACTION:** T. Holm report on the status of the implementation of the data access strategic plan.

**ACTION:** T. Holm will take care of this. (Briefing papers on how to better support the Archive through DOI.)

**ACTION:** Funding letter - give comments to Budge. Can your name be used? Budge and Joanne (supported by committee) will do word smithing.

**ACTION:** T. Holm report on the status of the implementation of the data access strategic plan.